

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A method of configuring signaling locations within a heart to monitor hemodynamic performance, comprising:

positioning signaling electrodes through a catheter forming a T-junction in the right atrium, the T-junction providing a plurality of connection paths for said signaling electrodes along a first and second axis interior to the heart, the second axis being within or around the left ventricle and being substantially horizontal with respect to the first axis, the first axis spanning anterior and posterior extremes of a right ventricular septum of the heart, the first axis being longer than the second axis;

receiving electrical signals from the signaling electrodes indicative of hemodynamic performance; and

delivering, in response to a certain received signal, stimulation via the signaling electrodes in at least one of the interventricular septum, a coronary vein of the left ventricle, and the epicardial wall of the left ventricle.

determining a progress of contraction in heart based on the received signals; and

stimulating a chamber of the heart at a plurality of locations in the chamber based on the progress of contraction for treatment of heart failure.

Claim 2 (Previously Presented): The method of claim 1, further comprising:

receiving depolarization signals originating from at least one atrium of the heart via the signaling electrodes.

Claim 3 (Currently Amended): The method of claim 2, wherein receiving depolarization signals further comprises:

receiving depolarization signals from within or around the left ventricle.

Claims 4-19 (Cancelled).

Claim 20 (Previously Presented): The method of claim 1, wherein the signaling electrodes is a plurality of electrodes positioned endocardially in the heart.

Claims 21-26 (Cancelled).

Claim 27 (Previously Presented): The method of claim 1, wherein the signaling electrodes are positioned in at least one of the interventricular septum, a coronary vein in the left ventricle, and the epicardial wall of the left ventricle.

Claim 28 (Previously Presented): The method of claim 27, wherein receiving electrical signals includes receiving electrical signals from a signaling electrode connected to a lead passing through the superior vena cava, the right atrium, the ostium of the coronary sinus, and a coronary vein of the left ventricle.

Claims 29-33 (Cancelled).

Claim 34 (Previously Presented): The method of claim 1, wherein delivering the stimulation further comprises:

stimulating at a first signaling electrode in the interventricular septum and at a second signaling electrode in a coronary vein of the left ventricle.

Claims 35-64 (Cancelled).

Claim 65 (Previously Presented): The method of claim 1, wherein one of the plurality of signaling electrodes is located within the entrance of the coronary sinus along the first axis.

Claim 66 (Previously Presented): The method of claim 1, further comprising:
positioning the signaling electrodes at equidistant locations along the first and second axes.

Claim 67 (Previously Presented): A system for monitoring the hemodynamic performance of a heart, comprising:

a plurality of signaling electrodes configured to be positioned [[at]] through a catheter forming a T-junction in a right atrium of the heart, the T-junction providing a plurality of connection paths for said signaling electrodes along a first and second axis interior to the heart, the second axis being within or around the left ventricle and being substantially horizontal with respect to the first axis, the first axis spanning anterior and posterior extremes of a right ventricular septum of the heart, the first axis being longer than the second axis; and

a processor responsive to a certain one of the received electrical signals of the signaling electrodes, to deliver a stimulation signal to the plurality of signaling electrodes in at least one of the interventricular septum, a coronary vein of the left ventricle, and the epicardial wall of the left ventricle.

Claim 68 (Previously Presented): The system of claim 67, wherein the received signals are depolarization signals originating from at least one atrium of the heart via the plurality of signaling electrodes.

Claim 69 (Previously Presented): The system of claim 68, wherein the depolarization signals are sensed by the plurality of signaling electrodes from multiple locations within the left ventricle.

Claim 70 (Previously Presented): The system of claim 67, wherein the plurality of signaling electrodes is configured to be positioned endocardially in the heart.

Claim 71 (Previously Presented): The system of claim 67, wherein the stimulation signal is delivered to a first signaling electrode in the interventricular septum and at a second electrode in a coronary vein of the left ventricle.

Claim 72 (Previously Presented): The system of claim 67, wherein the plurality of signaling electrodes are configured to be at equidistant locations along the first and second axes.

Claim 73 (Previously Presented): The system of claim 67, wherein one of the plurality of signaling electrodes is located within the entrance of the coronary sinus along the first axis.